

from the previous amendment, which are also presented in the PENDING CLAIMS section so as to constitute the entire set of the pending claims (under consideration). The PENDING CLAIMS section presents a detailed listing of all claims that are, or were, in the application, using status identifiers.

PENDING CLAIMS

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1. (Currently Amended) A small footprint device comprising:

- a. at least one processing element configured to execute groups of one or more program modules in separate contexts, objects of a program module associated with a particular context;
- b. memory;
- c. a context barrier for separating and isolating said contexts, said context barrier configured to use said memory to control object-oriented access of a program module executing in one context to information and/or a program module executing in another context, said context barrier further configured to prevent said access if said access is unauthorized and enable said access if said access is authorized~~using said memory for isolating program modules from one another;~~
and
- d. a global data structure for permitting one program module to access information from another program module ~~across~~ by bypassing said context barrier.

23. (Previously Added) The small footprint device of claim 1 in which said context barrier allocates separate name spaces for each program module.

24. (Previously Added) The small footprint device of claim 23 in which at least two program modules can access said global data structure even though they are located in different respective name spaces.

25. (Previously Added) The small footprint device of claim 1 in which said context barrier allocates separate memory spaces for each program module.
26. (Previously Added) The small footprint device of claim 25 in which at least two program modules can access said global data structure even though they are located in different respective memory spaces.
27. (Previously Amended) The small footprint device of claim 1 wherein said program modules comprise at least one of a principal or an object and wherein said context barrier enforces security checks on at least one of a principal, an object and an action.
28. (Previously Added) The small footprint device of claim 27 in which at least one security check is based on partial name agreement between a principal and an object.
29. (Previously Added) The small footprint device of claim 28 in which at least one program can access said global data structure without said at least one security check.
30. (Previously Added) The small footprint device of claim 27 in which at least one security check is based on memory space agreement between a principal and an object.

31. (Previously Added) The small footprint device of claim 30 in which at least one program can access a global data structure without said at least one security check.
32. (Currently Amended) A method of operating a small footprint device that includes a processing machine, wherein program modules are executed on the processing machine, the method, comprising: the step of
separating program modules contexts using a context barrier, said context barrier configured to isolate said contexts and to control the object-oriented access of a program module executing in another context, said separating further comprising:
preventing said access if said access is unauthorized; and
enabling said access if said access is authorized;
executing groups of one or more program modules in separate contexts, objects of a program module associated with a particular context; and
permitting access to information across the said context barrier by bypassing said context barrier using a global data structure.
33. (Previously Amended) The method of claim 32 wherein said program modules comprise at least one of a principal or an object and wherein the context barrier will not permit a principal to perform an action on an object unless both principal and object are part of the same context unless the request is for access to a global data structure.

34. (Currently Amended) A method of permitting access to information on a small footprint device from a first program module to a second program module separated by a context barrier, said small footprint device comprising:
at least one processing element configured to execute groups of one or more program modules in separate contexts, objects of a program module associated with a particular context;
memory; and
a context barrier for separating and isolating said contexts, said context barrier configured to use said memory to control object-oriented access of a program module executing in one context to information and/or a program module executing in another context, said context barrier further configured to prevent said access if said access is unauthorized and enable said access if said access is authorized, the method comprising: ~~the step of~~
creating a global data structure which may be accessed by at least two program modules; and
using said global data structure to permit access to information across said context barrier by bypassing said context barrier.
35. (Currently Amended) A method of communicating across a context barrier separating program modules on a small footprint device, said small footprint device comprising:

at least one processing element configured to execute groups of one or more program modules in separate contexts, objects of a program module associated with a particular context;

memory; and

a context barrier for separating and isolating said contexts, said context barrier configured to use said memory to control object-oriented access of a program module executing in one context to information and/or a program module executing in another context, said context barrier further configured to prevent said access if said access is unauthorized and enable said access if said access is authorized, the method, comprising the steps of:

- a. creating a global data structure;
- b. permitting at least one program module to write information to said global data structure; and
- c. having at least one other program module read information from said global data structure, bypassing said context barrier.

36. (Currently Amended) A computer program product, comprising:

- a. a memory medium; and
- b. a computer controlling element comprising instructions for implementing a context barrier on a small footprint device and for bypassing said context barrier using a global data structure, said small footprint device comprising:

at least one processing element configured to execute groups of one or more
program modules in separate contexts, objects of a program module
associated with a particular context;
memory; and
a context barrier for separating and isolating said contexts, said context barrier
configured to use said memory to control object-oriented access of a
program module executing in one context to information and/or a program
module executing in another context, said context barrier further configured
to prevent said access if said access is unauthorized and enable said access
if said access is authorized.

37. (Previously Added) The computer program product of claim 36 in which said medium is a carrier wave.

38. (Currently Amended) A computer program product, comprising:

a. a memory medium; and

b. a computer controlling element comprising instructions for separating a plurality of programs on a small footprint device by running them in respective contexts and for permitting one program to access information from another program by way of bypassing a context barrier using a global data structure, said small footprint device comprising:

at least one processing element configured to execute groups of one or more
program modules in separate contexts, objects of a program module
associated with a particular context;
memory; and
a context barrier for separating and isolating said contexts, said context barrier
configured to use said memory to control object-oriented access of a
program module executing in one context to information and/or a program
module executing in another context, said context barrier further configured
to prevent said access if said access is unauthorized and enable said access
if said access is authorized.

39. (Previously Added) The computer program product of claim 38 in which said medium is. a carrier wave.
40. (Currently Amended) A carrier wave carrying instructions for implementing a global data structure for bypassing a context barrier on a small footprint device over a communications link, said small footprint device comprising:
at least one processing element configured to execute groups of one or more program
modules in separate contexts, objects of a program module associated with a
particular context;
memory; and
a context barrier for separating and isolating said contexts, said context barrier
configured to use said memory to control object-oriented access of a program

module executing in one context to information and/or a program module
executing in another context, said context barrier further configured to prevent
said access if said access is unauthorized and enable said access if said access is
authorized.

41. (Currently Amended) A carrier wave carrying instructions over a communications link for separating a plurality of programs on a small footprint device by running them in respective contexts and for permitting one program to access information from another program using at least one global data structure, said small footprint device comprising:
at least one processing element configured to execute groups of one or more program modules in separate contexts, objects of a program module associated with a particular context;
memory; and
a context barrier for separating and isolating said contexts, said context barrier configured to use said memory to control object-oriented access of a program module executing in one context to information and/or a program module executing in another context, said context barrier further configured to prevent said access if said access is unauthorized and enable said access if said access is authorized.

42. (Currently Amended) A method of transmitting code over a network, comprising ~~the~~ step of transmitting a block of code from a server, said block of code comprising

instructions for implementing a global data structure for bypassing a context barrier on a small footprint device over a communications link, said small footprint device comprising:

at least one processing element configured to execute groups of one or more program modules in separate contexts, objects of a program module associated with a particular context;

memory; and

a context barrier for separating and isolating said contexts, said context barrier configured to use said memory to control object-oriented access of a program module executing in one context to information and/or a program module executing in another context, said context barrier further configured to prevent said access if said access is unauthorized and enable said access if said access is authorized.